

HYSS, M.A.; DMITRIYEVA, G.V.; SMIRNOVA, A.S.; Primali uchastiye:
RUKAVISHNIKOVA, V.V.; KOTEL'NIKOVA, I.A.; ZHIVYKH, T.I.;
BAZHENOV, A.N.; MEL'NIKOV, A.V.

Ways of improving the performance characteristics of electrodes
for steel smelting furnaces. Stal' 25 no.5:423-425 My '65.
(MIRA 18:6)

RYSS, M.A.; DMITRIYEVA, G.V.; SMIRNOVA, A.S.; Prinsipali uchastiye:
RUKAVISHNIKOVA, V.V.; KOTEL'NIKOVA, I.A.; ZHIVYKH, T.I.; BAZHENOV, A.N.;
MEL'NIKOV, A.V.

Ways of improving the performance characteristics of electrodes
for steel smelting furnaces. Stal' 25 no.5:423-425 My '65.
(MIRA 18:6)

VOLIKOV, P., professor, doktor tekhnicheskikh nauk, ZHIYANOV, I., assistant inzhener-mekhanik.
Veterinarians must have a knowledge of technology. Veterinariia 33
no.9:16-20 S '56. (MLRA 9:10)

1. Moskovskaya veterinarnaya akademiya.
(Veterinary medicine) (Farm mechanization)

I 14531-66 EWT(d)/EWT(m)/EPF(n)-2/EMP(v)/T/EMP(t)/EMP(k)/EMP(h)/EMP(b)/EMP(l)
 ACC NR: AP6005278 IJP(c) JD/WW/HW/JG/SOURCE CODE: UR/0413/66/000/001/0017/0017
 INVENTOR: Moskalenko, N. D.; Novikov, O. K.; Pavlov, V. V.; Garibov, G. S.; Makhnovskiy, V. S.; Zhizhina, T. S.; Rakhinskiy, G. N.; Shur, I. A.
 DJ
 ORG: none
 TITLE: Continuous mill for rolling aluminum strips from liquid metal. Class 7,
 No. 177395
 SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 7
 TOPIC TAGS: aluminum, aluminum strip, aluminum strip rolling, continuous rolling,
 rolling mill, liquid metal rolling
 ABSTRACT: This Author Certificate introduces a continuous mill for rolling aluminum
 strips from liquid metal. The mill comprises a continuous casting machine with a
 mold formed by a metal belt and a wheel, a raw strip guiding stand, a planetary mill,
 and a finishing stand. In order to synchronize the casting and rolling rates, the

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UDC: [669.716:621.746,27] 621.771.237.064

L 14531-66

ACC NR. AP6005278

continuous casting machine is driven by the lower roll of the guiding stand by means

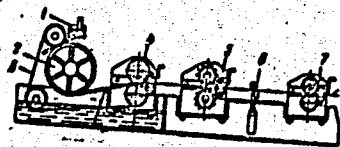


Fig. 1. Continuous mill

- 1 - Ladle for molten aluminum;
- 2 - mold wheel; 3 - metal belt;
- 4 - guiding stand; 5 - planetary stand; 6 - loop former; 7 - finishing stand.

of a metal belt (see Fig. 1). Orig. art. has: 1 figure.

[WW]

SUB CODE: 11, 13/ SUBM DATE: 06May63/ ATD PRESS: 4/98

TS
ord 2/2

ZHIYANOVA, O. P.

Measurement of the components of the weight of a body resting on
an inclined surface. Fiz. v shkole 20 no.3:51 My-Je '60.
(MIRA 13:11)

1. 5-ya srednyaya shkola' g.Nikolayev.
(Scales (Weighing machines))
(Gravity)

ZHIYANOVA, O.P.

Methods for solving problems on technical topics.
17 no.4:82-84 J1-Ag '57.

Fiz.v shkole
(MIRA 10:7)

1. Pedagogicheskiy institut, g. Nikolayev.
(Technical education)

ZHIYANOVA, O.P.

Laboratory work in statics on polytechnical subjects. Fiz. v shkole
18 no.4:54-56 JI-Ag '58. (MIRA 11:7)

1. Pedagogicheskiy institut, G. Nikolayev.
(Statics---Study and teaching)

С. П. А. В. С. Р.

AUTHOR: Zhiyanova, O.P. (Nikolayev) 47-4-16/20

TITLE: On the Method of Solving Problems With a Technical Content (K metodike resheniya zadach s tekhnicheskim sodержaniyem)

PERIODICAL: Fizika v shkole, 1957, No 4, pp 82-84 (USSR)

ABSTRACT: In order to choose and compose problems with a technical content, the author formulates the following basic requirements: 1. The principle of operation of the technical device should be closely connected with definite concepts of physics or conform to established laws. 2. The technical object under consideration should find wide or important application in national economy. 3. The solution should be an answer to a practical question. The article contains brief comments on these requirements, partly illustrated by examples. Problems with a technical content can, according to the method of their solution, be divided into three groups. The first group cover problems where drawings, an epidiascope or excursions to the place of production make the student acquainted with the actual technical object. The second group refers to problems where appliances, devices or models serve as a visual aid, while to the third group belong those problems which have a relation to the students practical work. For a better understanding, each

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On the Method of Solving Problems With a Technical Content

47-4-16/20

group is illustrate by an example. The article states that the solving of problems with a technical content develops the student's capability of technical thinking. The article contains 3 figures.

ASSOCIATION: Pedagogical Institute, Nikolayev (Pedagogicheskiy institut, Nikolayev)

AVAILABLE: Library of Congress

Card 2/2

ADRIANOV, P.K.; ANDRIANOV, S.M.; BEREZIKOV, B.S.; GOLOVKO, V.G. [Holovko, V.H.]; DOBROVOL'SKIY, A.V. [Doborovol's'kiy, A.V.]; DOVGAL', M.F. [Dovhal', M.F.]; YELIZAROV, V.D. [Ielizarov, V.D.]; ZHIZDRINSKIY, V.M. [Zhyzdryns'kiy, V.M.]; ZVENIGORODSKIY, O.M. [Zvenigorods'kiy, O.M.]; ZAYCHENKO, R.M. [Zaichenko, R.M.]; IVANENKO, Ye.I. [Ivanenko, Ye.I.]; KOMAR, A.M.; KOS'YANOV, O.M.; KAZAKOV, O.I.; KOSENKO, S.K.; KLIMENKO, T.A.; KIR'YAKOV, O.P.; KALISHUK, O.I.; LELICHENKO, M.T.; LEBEDICH, M.V.; MIKHAYLOV, V.O. [Mykhailov, V.O.]; MOROZ, I.I.; MOSHCHIL', V.Yu. [Moshchil', V.Yu.]; NEPOROZHNIY, P.S. [Neporozhniy, P.S.]; NEZDATNIY, S.M. [Nezdatnyi, S.M.]; NOVIKOV, V.I.; POLEVOY, S.K. [Polevoi, S.K.]; PEREKHREST, M.S.; PUZIK, O.Ye. [Puzik, O.E.]; RADIN, K.S.; SLIVINSKIY, O.I. [Slivins'kiy, O.I.]; STANISLAVSKIY, A.I. [Stanislavs'kiy, A.I.]; USPENSKIY, V.P. [Uspens'kiy, V.P.]; KHORKHOT, O.Ya.; KHILYUK, F.P.; TSAPENKO, M.P.; SHVETS, V.I.; MAL'CHEVSKIY, V. [Mal'chevs'kiy, V.], red.; ZELENIKOVA, Ye. [Zelenkova, E.], tekhn.red.

[The Ukraine builds] Ukraina buduie. Kyiv, Derzh.vyd-vo lit-ry z budivnytstva i arkhitekt., 1957. 221 p. (MIRA 11:5)
(Ukraine--Construction industry)

L 16174-66 EWT(m)/EWP(j)/T WW/JW/WE/RM
 ACC NR: AP5025348 SOURCE CODE: UR/0366/65/001/010/1868/1871
 AUTHOR: Chegolya, A. S.; Smirnova, N. S.; Zhiadyuk, B. I.; Ryshenko, L. M.;
Golub, G. I.; Ponomarev, A. A.
 ORG: Saratov State University im. N. G. Chernyshev (Saratovskiy gosudarstvennyy universitet) 45 B
 TITLE: Hydrogenation of aromatic amines on ruthenium catalysts 44 S
 SOURCE: Zhurnal organicheskoy khimii, v. 1, no. 10, 1965, 1868-1871
 TOPIC TAGS: hydrogenation, aromatic nitro compound, primary aromatic amine, catalysis, aniline, ruthenium
 ABSTRACT: Aniline and m- and p-phenylenediamine (I) were hydrogenated in liquid phase on Ru catalysts at 100-170C to give cyclohexane analogs. All of the Ru catalysts tested gave satisfactory results, however, the rate of hydrogenation decreased in the order $RuO_2 > Ru-C > Ru-silica$ gel. The presence of an additional
 Card 1/2 UDO: 542.541 : 547.551/3 : 546.96 2

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ACC NR: AP5025348

0
amino or nitro group on the aromatic ring slowed down the reaction. Hydrogenation of I at 80 atm. H. pressure occurred faster in polar solvents (H₂O, MeOH) than in solvents of lower polarity (EtOH, PrOH, n-amyl alcohol, or dioxane). In a typical experiment, the catalyst was placed in a rotating autoclave, the aromatic amine added in a 3-10-fold amount of solvent, the autoclave pressurized with electrolytic H to 110 atm. and heated in an electric oven. After the H absorption was finished, the catalyst was filtered off, the solvent eliminated, and the residue distilled in vacuo. The hydrogenation of I is highly stereospecific and yields almost exclusively trans-1,4-diaminocyclohexane. Orig. art. has: 2 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 09Nov64/ ORIG/REF: 007/ CLOTH REF: 005

Card 2/2

S/137/60/000/009/020/029
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960; No. 9, p. 258,
21601

AUTHORS: Gol'dshteyn, Ya.Ye., Zhizhakina, O.D.

TITLE: The Effect of Cerium on the Structure and Properties of Cast and Forged Steel

PERIODICAL: V sb.: Redkozamel'n. elementy v stalyakh i splavakh, Moscow, Metallurgizdat, 1959, pp. 130-154

TEXT: The authors investigated the effect of Ce on the structure and properties of cast carbon steel of $\lambda 30$ ($L30$) - $\lambda 50$ ($L50$) grade. Ce was introduced in the form of 94% Fe-Ce in amounts of 0.1-1.0% (according to calculations). It was found that Ce increased considerably the plasticity and ductility of cast steel and also promotes effectively desulfurization of steel. Optimum amounts of Ce addition (in %) were for carbon steel 0.2-0.3 and for steel alloyed with Ni, Cr and Si 0.10-0.15. In all cases it is necessary to avoid a residual

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S/137/E0/000/009/020/029
A006/A001

The Effect of Cerium on the Structure and Properties of Cast and Forged Steel
content of Ce $> 0.1\%$ in the steel, i.e. the transition from the micro- to the
macro-alloying of steel. There are 24 references.

T.P.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

PYATAKOVA, L.I., inzh.; ZHIZHAKINA, O.D.

Effect of boron on grain size in steel. Metalloved. 1 obr. met.
no.5:27-30 My '58. (MIRA 11:5)
(Boron steel) (Metals, Effect of temperature on)

Zhizhakina, O.D.

129-58-5-8/17

AUTHORS: Pyatakova, L. L., Engineer and *Zhizhakina, O. D.*
TITLE: On the Influence of Boron on the Grain Size of Steel
(K voprosu vliyaniya bora na velichinu zerna stali)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 5,
pp 27-30 + 2 plates (USSR)

ABSTRACT: Most authors arrive at the conclusion that the addition of 0.001 to 0.005% boron increases the effective size of the austenite grain and increases its tendency to growth. Vinarov, S.M. (Ref.3) points out the variable influence of various quantities of boron on the grain size. Corbett, R. and Williams, A. (Iron Age, No.15, 1945) expressed the view that addition of boron does not bring about increase in the size of the austenite grain. Very little is published in literature on the influence of boron and of the conditions of preliminary deoxidation on the dimensions of the austenite grain. Kafedra Metallovedeniya ChPI (Metallurgy Chair of ChPI) and Tsentral'naya Laboratoriya ChKZ (Central Laboratory of the ChKZ) carried out studies of the influence of various quantities of boron and of preliminary deoxidation with ferrotitanium on the size of the austenite grain which is obtained in the case of heating of boron containing steel.

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On the Influence of Boron on the Grain Size of Steel 129-58-5-8/17

A melt of the steel L35 (Ref.5) micro-alloyed with boron has been cast and investigated. The smelting was done in a 6 ton electric arc furnace with an acidic bottom. The influence of boron additions on the austenite grain size was studied during fractional casting of melts with various quantities of boron. After reaching the desired chemical composition the metal was tapped into a 5.5 ton ladle. After tapping off the slag, aluminium (0.8 kg per ton) and 18% ferrotitanium (2 kg per ton of metal) were introduced. From the large ladle the metal was poured into a smaller casting ladle of 600 kg, at the bottom of which ferroboral was placed containing 6.75% B, 4.85% Si, 5.48% Al, 0.06% C, 0.044% S, rest Fe. Prior to introducing boron into the metal in the small ladle, additional deoxidation was effected using 1 kg of aluminium per 1 ton of metal. From the small ladle ingots weighing 60 kg were cast. The chemical composition of one of the investigated melts is entered in Table 1. Details are also given of the tests relating to the influence of preliminary deoxidation of boron containing steels with ferrotitanium on the grain size of the austenite. The

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On the Influence of Boron on the Grain Size of Steel 129-58-5-8/17

results confirm the great influence of micro-additions of boron on the growth of the grain size during heating of cast and forged steel. The temperature of the beginning of an appreciable growth of the austenite grain during heating of boron containing steel can be increased by preliminary deoxidation and degasification of steel by means of ferrotitanium. The results confirm that deformation in the hot state has an influence of lowering the temperature threshold of the growth of the austenite grain. The experiments have shown that a non-uniformity in the grain size is a characteristic feature of boron containing steels, particularly in the as-cast state and this is attributed to the non-uniform distribution of small quantities of boron along the grain boundaries. If it is necessary to ensure a fine grain structure, boron containing steel should contain residual titanium to be introduced after deoxidation with aluminium. There are 4 figures, 2 tables and 6 references, 3 of which are Soviet and 3 English

AVAILABLE: Library of Congress.
Card 3/3

1. Grains (Metallurgy)-Effects of boron
2. Austenitic steel-Metallurgy
3. Boron-Metallurgical effects

GOL'DSHEYN, Ya.Ye., kand.tekhn.nauk; ZHIZHAKINA, O.D., inzh.

Selenium in cast and structural steel. Stal' 21 no.9:836-844
S '61. (MIRA 14:9)

(Steel--Metallurgy) (Selenium)

GOL'DSHEYN, Ya.Ye.; ZHIZHAKINA, O.D.

Effect of small additions of RZM [rare-earth metals] on the
structure and properties of cast steel. Lit. proizv. no.7:
24-26 J1 '63.
(MIRA 17:1)

18. IIII

27932 S/133/61/000/009/009/011
A054/A127

AUTHORS: Gol'dshteyn, Ya. Ye., Candidate of Technical Sciences, Zhizhakina,
O. D., Engineer

TITLE: Selenium in cast and structural steels

PERIODICAL: Stal', no. 9, 1961, 836 - 844

TEXT: The authors investigated the effect of various selenium additions on the structure and properties of ordinary carbon steel and steels alloyed with manganese, chromium or copper respectively. They present the phase diagrams of Se-Fe, Mn, Cr and Cu and describe tests of the 40JK(4OLK) grade steel melted in a 60-kg induction furnace with acidic hearth. The composition of various fractions processed from one heat are given in a table, which shows that by adding selenium, the manganese content of the steel decreases, while above a carbon content of 0.13% the increase in selenium content of carbon steel becomes slower. When adding more than 0.13% selenium, the macrostructure of carbon steel will be modified. The effect of selenium on the mechanical properties of 4OLK steel was tested after normalizing the specimens at 900°C. The following values were obtained:

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Selenium in cast and structural steels

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Fraction	σ_B , kg/mm ²	σ_s , kg/mm ²	δ , %	ψ , %	a_k , kgm/cm ²
I	68.9	43.5	11.7	16.0	4.5
II	66.9	50.7	17.7	26.8	5.6
III	60.8	47.4	7.5	14.5	4.2
IV	51.6	43.6	4.5	6.0	2.5
V	42.4	-	1.0	2.0	1.0

These data show that an addition of up to 0.05% Se to normalized carbon steel improves the mechanical properties while an addition of more than the above quantity makes these properties gradually deteriorate. The change in mechanical parameters must be put down to a modified microstructure and macrostructure. The improvement in mechanical properties when adding not more than 0.05% Se is mainly due to the change in the structure and behavior of sulfides and their separation under the effect of selenium. Increased amounts of selenium also increase the size and the number of sulfo-selenide globules which results in an inhomogeneous structure. Carbon steels with more than 0.15% selenium addition in comparison with magnesium-modified iron castings show a good weldability and only a slight tendency to cleavage and hot and cold welding cracks. When adding not more than 0.06% Se, the cutting conditions for turning, drilling and broaching operations can be raised by

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Selenium in cast and structural steels

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A054/A127

15 - 20% while the consumption of cutting tools is reduced by 25 - 30%. If the residual selenium content is increased to 0.15 - 0.25%, the machinability of steel castings will attain the level of forged steel. The effect of selenium on structural steel was studied on grade "45" steel. The metal was cast in rods from which specimens, 15 x 15 x 60 mm in size, were cut, normalized at 860°C, water-hardened at 840°C and annealed at 600°C (also in water). The mechanical properties defined of the various fractures are given in a table. The changes in the mechanical properties of selenium-containing, normalized steel (strong effect of hot deformation mainly on ductility, lower sensitivity of relative elongation and notch toughness to the selenium content, etc.) prove the surface activity of selenium and its presence not only in chemical compounds, but also in solution. The effect of the sulfo-selenide content on the mechanical properties of structural steel was investigated on a steel containing 0.46% C; 0.25% Si; 0.91% Mn; 0.034% S; 0.032% P; 0.04% Cr; 0.07% Ni and 0.14% Se which showed the following characteristics: (numerator: after normalization; denominator: after normalization and refining)

σ_B , kg/mm ²	σ_s , kg/mm ²	δ , %	ψ , %	a_K , kgm/cm ²	d_B , mm
$\frac{76.4}{83.5}$	$\frac{60.1}{73.7}$	$\frac{20.0}{12.6}$	$\frac{30.6}{29.7}$	$\frac{3.8}{3.2}$	$\frac{4.2}{3.8}$

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Selenium in cast and structural steels

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The higher level of ductility and dynamic toughness of the normalized specimens can be explained by an accelerated cooling of the steel in the ingot mold which results in the crushing of crystallites and nonmetallic inclusions, and by a higher density of the metal. It was possible to raise the selenium content of this steel to 0.1 - 0.12% without impairing its mechanical properties, while at the same time improving its workability by a factor of 1.5. The amount of selenium to be added to steels with pearlitic structure depends on their initial composition and the mechanical properties required. The effect of selenium on cemented steels (18Г2 [18G2]; 18Х2 [18Kh2]; 18А2 [18D2]) was investigated after normalization at 880°C and hardening (at 880°C) and low annealing at 200°C. The results show that the activity of selenium in the steel depends to a great extent on the presence of other alloying elements and their individual or combined effect on the changes at the grain boundaries. With the same selenium content 18G2 (manganese) steel possesses more stable mechanical properties than 18Kh2 (chrome) steel. After hardening and low-temperature annealing the notch toughness of manganese-steel containing 0.04 - 0.09% selenium increases, whereas in chrome-steel this characteristic decreases with the same selenium content. Selenium has a very unfavorable effect on copper-alloyed steels. For all the steels tested, but mainly for 18G2, 18D2

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Selenium in cast and structural steels

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and 18Kh2 steels it was established that the hardenability of the steel decreased upon adding selenium and that the steel structure obtained a ferritic character. The addition of selenium is therefore one of the few methods suitable to decrease the hardenability. It was found, with regard to the effect of selenium on lithoidal fracture, that small amounts of selenium added to the steel grades 45, 18G2 and 18Kh2 increased their inclination to lithoidal fracture during overheating, when, however, the selenium-content was raised above 0.08 - 0.09%, this tendency decreased. This controversial behavior of steels with small and larger amounts of selenium can be explained by the effect of selenium on the separation and distribution of sulfo-selenides in the overheated steel. By adding up to 0.1% selenium to the steel, the formation of sulfo-selenides is promoted and these, in turn, also reduce the tendency to lithoidal fractures. There are 19 figures and 6 tables.

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"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064830005-3

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064830005-3"

GOL'DSHTEYN, Ya.Ye., kandidat tekhnicheskikh nauk; PYATAKOVA, L.L., inzhener;
ZHIZHAKINA, O.D., inzhener.

Cast carbon steel with boron additives. Vest.mash.36 no.7:23-27 J1 '56.
(Boron steel) (MLBA 9:9)

ZHIZHENKO, A.B.

Number of subfields of a field of algebraic functions of one
variable. Izv. AN SSSR. Ser. mat. 21 no.4:541-548 J1-Ag '57.
(MIRA 11:6)

(Functions, Algebraic)

ZHIZHENKO, A. B., Cand Phys-Math Sci -- (diss) "Groups of homologies of algebraic manifold." Moscow, 1960. 4 pp; (Moscow City Order of Lenin and Order of Labor Red Banner Univ im M. V. Lomonosov); 150 copies; price not given; bibliography at end of text (10 entries); (KL, 27-60, 147)

16(1)

AUTHOR: Zhizhchenko, A.B.

SOV/20-128-4-6/65

TITLE: Homological Groups of Affine Algebraic Manifolds

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 4, pp 661-664 (USSR)

ABSTRACT: The author calculates the dimensions of the groups of homology of a non-singular affine algebraic manifold and gives an intuitive geometrical interpretation of his results. In the terminology of J.Fáry [Ref 3] the obtained result is equivalent to the calculation of the differential d_3 . Here it is stated that the image of d_3 equals zero and $N_0 = N$. The author uses the usual method of "fibreing" of an algebraic manifold into hyperplane cuts. There are six lemmas and two theorems altogether. There are 4 non-Soviet references, of which 2 are French, 1 English, and 1 American.

ASSOCIATION: Matematicheskii institut imeni V.A.Steklova Akademii nauk SSSR
(Mathematical Institute imeni V.A.Steklov of the AS USSR)

PRESENTED: June 1, 1959, by S.L.Pontryagin, Academician

SUBMITTED: June 1, 1959

Card 1/1

ZHIZHENKO, A.B.

AUTHOR: ZHIZHENKO, A.B.

38-4-5/10

TITLE: On the Number of Subfields of the Field of the Algebraic Functions of one Variable (O chisle podpoley polya algebraicheskikh funktsiy ot odnogo peremennogo).

PERIODICAL: Izvestiya Akad.Nauk Ser.Mat., 1957, Vol.21, Nr 4, pp.541-548 (USSR)

ABSTRACT: Let Σ be the field of the algebraic functions of one variable over the algebraically closed field of constants k with the characteristic p . Let Σ' be a subfield of Σ . Let Σ be a separable extension of Σ' . The genus of Σ and Σ' is assumed to be greater than 1. It is shown that Σ can possess only a finite number of different Σ' . In the first (geometric) part the proof is similar to Severi's considerations (finite number of subfields of the genus >1 in the classical case), while in the second part the theory of the abelian varieties over arbitrary fields is applied. By some examples it is shown that the presuppositions of the theorem are necessary.

PRESENTED: By M.A. Lavrent'yev, Academician

SUBMITTED: November 17, 1956

AVAILABLE: Library of Congress
Card 1/1

ZHIZHENKO, A.B.

Homology groups of algebraic manifolds. Izv. AN SSSR. Ser.
mat. 25 no.6:765-788 Nov '61. (MIRA 14:11)
(Topology) (Geometry, Algebraic)

SHAFAREVICH, I.R.; AVERBUKH, B.G.; VAYNBERG, Yu.R.; ZHIZHENKO, A.B.;
MANIN, Yu.I.; MOYSHEZON, B.G.; TYURINA, G.N.; TYURIN, A.N.;
PETROVSKIY, I.G., akademik, otv. red.; NIKOL'SKIY, S.M., prof.,
zamestitel' otv. red.

[Algebraic surfaces.] Algebraicheskie poverkhnosti. Moskva.
Nauka, 1965. 214 p. (Akademiia nauk SSSR. Matematicheski
institut. Trudy, vol. 75)

(MIRA 18:5)

ZHIZHENKO, B. P.

"History of the Formation of the Basin in the Evksinsko-Kaspiyskiy District in the
pliocene Era,"

Byul. Mosk. Obsch. Ispytat, Prirody, Otdel Geol., 23, No. 1, 1948.

ZHIZHENKO, B. P.

"The Boundaries of the Eocene and Oligocene in the Northern Caucasus,"

Iz. Ak. Nauk SSSR, Ser. Geol., 2, 1949.

Mbr., Rostov Geological Soc., 1947.

ZHIZHENKO, B.P.

Main problems in the stratigraphy and paleogeography of Cenozoic
sediments in the southern U.S.S.R. *Biul. MOIP. Otd. geol.* 26 no.4:
89-90 '51. (MIRA 11:5)
(Ukraine--Geology)

ZHIZHONCHENKO, B. F.

Geology, Stratigraphic - Chernovtsy Province.

Miocene deposits of Chernovtsy District. Biul. MOIP. Otd. geol. 27 no. 2, 1952.

Monthly List of Russian Accessions, Library of Congress
November 1952. UNCLASSIFIED.

ZHIZHENKO, B. P.

"Draft of the Unified Stratigraphic Scheme of Paleogene and Neogene Deposits,"

report delivered in the Geologic Section, 1 March-4 June 1957.

Chronicle of the Activity of the Geologic Section, Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Otdel Geologicheskii, No. 6, p. 115-118, 1957.

~~ZHIZHCHENKO, Boris Prokof'yevich; SHOROKHOVA, L.I., vedushchiy red.;~~
~~PROFIMOV, A.V., tekhn.red.~~

[Principles of stratigraphy and a unified scheme for the division
of Cenozoic deposits of the Northern Caucasus and adjacent provinces]
Printsipy stratigrafii i unifitsirovannia skhema deleniia keno-
zoiskikh otlozhenii Severnogo Kavkaza i smozhnykh oblastei. Moskva,
Gos.nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1958.
311 p. (MIRA 11:4)

(Caucasus, Northern--Geology, Stratigraphic)

ZHIZHENKO, Boris Prokof'yevich; VASSOYEVICH, N.B., red.; FIDOTOVA,
M.I., vedushchiy red.; GHEENAD'YEVA, I.M., tekhn.red.

[Methods of paleogeographical research] Metody paleogeograficheskikh
issledovaniy. Leningrad, Gos.nauchno-tekhn.isd-vo neft. i gorno-
toplivnoi lit-ry, Leningr. otd-nie, 1959. 370 p. (MIHA 12:4)
(Paleogeographical research)

ZHIZHENKO, B.P., doktor geol.-mineral.nauk, red.: Primeneniye uchastiye:
KRASHENINNIKOV, V.A.; SHNEYDER, G.F., BEKMAN, Yu.K., vedushchiy
red.; POLOSINA, A.S., tekhn.red.

[Atlas of middle Miocene fauna of the Northern Caucasus and the
Crimea] Atlas srednemiotsenovoi fauny Severnogo Kavkaza i Kryma.
Pod red. B.P.Zhizhenko. Moskva, Gos.nauchno-tekhn.izd-vo
neft. i gorno-toplivnoi lit-ry, 1959. 385 p. (MIRA 13:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnikh gazov.
 2. Geologicheskii institut AN SSSR (for Krasheninnikov).
 3. Kompleksnaya yuzhnaya geologicheskaya ekspeditsiya AN SSSR (for Shneyder).
- (Caucasus, Northern--Paleontology, Stratigraphic)
(Crimea--Paleontology, Stratigraphic)

ZHIZHCHENKO, B.P.

Zones of transported terrigenous material and crustal movements.
Sov.geol. 2 no.12:12-18 D '59. (MIRA 13:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gazovoy
promyshlennosti.
(Sediments (Geology))

ZHIZHENKO, B.P.

Scientific investigation of exploratory well cores.

Gaz. prom. 4 no.3:5-11 Mr '59.

(MIRA 12:5)

(Petroleum geology)

ZHIZHCHENKO, B.P.

Principal results of the combined biogeochemical study of Tertiary
sediments in central and eastern Ciscaucasia. Geol. nefti i gaza
4 no.1:41-48 Ja '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gazovoy promy-
shlennosti.
(Caucasus, Northern--Geochemical prospecting)

ZHIZHENKO, B.P.; KVALIASHVILI, G.A.

Miocene deposits of eastern Georgia. Soob. AN Gruz. SSR 27
no.1:39-42 J1 '61. (MIRA 16;8)

1. AN GruzSSR, Institut paleobiologii, Tbilisi. Predstavleno
akademikom AN GruzSSR L.Sh.Davitashvili.
(Georgia—Geology, Stratigraphic)

ZHIZHENKO, B. P.

Boundary between the Pliocene and Quaternary, based on the
fauna of marine mollusks. Trudy Kom. chetv. per. 20:155-156
'62. (MIRA 16:1)

(Geology, Stratigraphic) (Mollusks, Fossil)

FEDOROV, Pavel Vasil'yevich; ZHIZHCHENKO, B.P., otv.red.; VANYUKOVA, O.M., red.izd-va; MAKUNI, Ye.V., tekhn.red.

[Stratigraphy of Quaternary sediments on the Crimean-Caucasian coast and some problems of the geological history of the Black Sea.] Stratigrafiia chetvertichnykh otlozhenii Krymsko-Kavkazskogo poberezh'ia i nekotorye voprosy geologicheskoi istorii Chernogo moria. Moskva, 1963. 158 p. (Akademiia nauk SSSR. Geologicheskii institut. Trudy, no.88). (MIRA 17:2)

ZHIZHENKO, B.P.

Boundary between the Pliocene and Quaternary based on the fauna
of marine mollusks. Biul. Kom.chetv.per. no. 28:3-23 '63.

(MIRA 17:5)

ZHIZHENKO, B.P.

Stratigraphy of Upper Eocene and Oligocene sediments in the
Northern Caucasus and adjacent areas. Sov. geol. 7 no.3:29-
47 Mr '64. (MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo
gaza.

ZHIZHCHENKO, B.P.

Stratigraphy and volume of the Lower Miocene. Sov. geol.
7 no.4:40-60 Ap'64. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo
gaza.

ZHIZHCENKO, B. P.

"Akchagyl stage in Turkmenistan" by A. A. Ali-Zade. Part 1.
Reviewed by B. P. Zhizhchenko. Sov. geol. 5 no.10:140-143
0 '62. (MIRA 15:10)

(Turkmenistan--Geology) (Ali-Zade, A. A.)

ZHIZHCENKO, B.P.

Theoretical fundamentals of the stratigraphy of Cenozoic sediments.
Bul. MOIP. Otd.geol. 39 no.5:143-144. SMO '64.

(MIRA 18:2)

ZHIZHCHENKO, B.P.

Stratigraphy and extent of the Middle Miocene. Sov. geol. 7
no. 5:15-26 Ry '64 (MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo
gaza.

ZHIZHENKO, B.P.

Conference on the stratigraphy of the Northern Caucasus. Sov.
geol. 7 no.10:165-166 0 '64.
(MIRA 17:11)

ZHIZHENKO, B.P.

Types of marine faunas. Sov. geol. 7 no.7:15-41 J1 '64.

(MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza.

1ST AND 2ND COLUMNS										3RD AND 4TH COLUMNS									
PROCESSES AND PROPERTIES INDEX																			
<div style="position: relative;"> F 11 <p style="margin-top: 20px;">1101. EXPERIENCE IN BURNING NATURAL GAS IN SMALL BURNERS UNDER LARGE STEAM BOILERS. Zhishchenko, F. N. and Protopopov, A. Ya. (Za. Ekon. Topliva (Fuel Econ.), Nov. 1950, 13-16).</p> <p>A description is given of the conversion of a set of boilers, each with an output of 75-82 tons of steam per hr at 35 atm. to natural gas instead of pulverized anthracite duff-firing. 102 gas burners per boiler are used, each consisting of a short perforated pipe. Twelve of them encircle the pulverized fuel burners and mainly are situated in the secondary air inlets in the front wall of the furnace. (L).</p> </div>																			
ASTM-ILA METALLURGICAL LITERATURE CLASSIFICATION										EXPLANATION									
SYMBOLS										EXPLANATION									
SYMBOLS										EXPLANATION									
SYMBOLS										EXPLANATION									

ZAICA, A.A.; ZHIZHCENKO, F.N.

Measures undertaken to improve the working conditions of the
operating staff of thermal electric power plants. Energ. i
elektrotekh. prom. no.3:69-72 J1-S '62. (MIRA 18:11)

1. Kiyevskiy politekhnicheskii institut (for Zaika). 2. Kiyevskaya
teploelektrotsentral' No.3 (for Zhizhchenko).

VASHCHENKO, K.I., doktor tekhn.nauk; FIRSTOV, A.N., kand.tekhn.nauk;
ZHIZHCHENKO, V.V., kand.tekhn.nauk; DUPLYAK, V.D., inzh.; AVDOKUSHIN,
V.P., inzh.; KOSTENKO, G.D., inzh.; GOLOVAN', N.A., inzh.

Die-casting of bimetallic motorcycle cylinders. Mashinostroenie
no.4:65-68 J1-Ag '65. (MIRA 18:8)

S/276/03/000/004/005/007
A032/A126

AUTHOR: Zhizhchenko, V.V.

TITLE: Transition-layer structure in bimetal castings Al-Fe with a diffusion binding between same

PERIODICAL: Referativnyy zhurnal, Tekhnologiya mashinostroyeniya, no. 4, 1963, 5, abstract 4023. (Tr. Kiyevsk. politekhn. in-ta, 36, 1962, 156 - 168)

TEXT: The transition-layer formation in bimetal Al-Fe castings has a diffusion character and is subject to the laws of reactive diffusion. The thickness and structure of the transition layer are essentially affected by the metallic base structure (a tongue-shaped and thinner layer than in the case of perlite structure). As the temperature and time of alloying increase, the layer becomes thicker and the structure of the transition layer grows. The chemical composition of the alloy has an essential effect. For instance, Si refines the structure of the transition layer and eliminates the "tongue-shaped" structure. Zn, on account of a strong corrod-

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Transition-layer structure in bimetal ...

S/276/63/000/004/005/007

AO52/Al26

ing capacity of Al-Zn alloys in respect to Fe, contributes to the formation of a multilayer structure in the transition layer. For alloying grey perlitic irons an alloy of Al with Fe-Zn is a good alloying alloy. By its composition the transition-layer is heterogeneous and represents a mixture of various intermetallic compounds.

[Abstracter's note: Complete translation.]

Card 2/2

VASHCHENKO, K.I.; FIRSTOV, A.N.; ZHIZHCHENKO, V.V.; KADUCHENKO, A.G.;
GOLOVAN', N.A.

Bimetallic motor cylinders for motorcycles. Lit. proizv.
no.8:16-18 Ag '61. (MIRA 14:7)
(Motorcycles) (Laminated metals)

1 3186-66 EWP(k)/EWT(m)/T/EWP(t)/ETI KJP(c) JD/JH
ACC NR: AP6026024 SOURCE CODE: UR/0418/66/000/001/0043/0046

AUTHOR: Vashchenko, K. I. (Doctor of technical sciences); Zhizhchenko, V. V.
(Candidate of technical sciences); Firstov, A. N. (Candidate of technical sciences);
Kostenko, G. D. (Engineer)

ORG: none

TITLE: Intensity of iron saturation in calorizing alloys and methods for refining them

SOURCE: Tekhnologiya i organizatsiya proizvodstva, no. 1, 1966, 43-46

TOPIC TAGS: aluminum containing alloy, metallurgic process, metal purification, binary alloy, temperature test, metal melting, intermetallic compound, iron containing alloy, metallurgy

ABSTRACT: The authors point out that the extent to which aluminum alloys are saturated by iron during calorizing has not been studied up to the present time and little effort has been made to develop methods for purifying these alloys. The problem of refining is important not only from the standpoint of producing binary alloy castings but also for purification of cast aluminum alloys in which iron is a harmful impurity.

Iron saturation was studied for pure aluminum and for aluminum alloys with 7.15 and 28% zinc, as well as in a zinc alloy with 0.2% aluminum since these

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UDC: 621.74.043:62:222

L 34186-66

ACC NR: AP6026024

alloys are recommended for use in calorizing. Zinc alloy specimens with 0.2% aluminum were calorized at 535-545°C, aluminum alloys at 680-690 and 720-730°C and pure aluminum at 680-690, 720-730 and 780-790°C. Each specimen was held in the calorizing alloy for five minutes. After every five specimens had been calorized, metal samples weighing 8-10 g were removed from the vat for determining iron concentration. It was found that the specific rate of dissolution and the intensity of iron saturation are increased by raising the calorizing temperature. This is due to an increase in the activity of the melts with respect to iron (the degree of heating and the saturation limit of the iron melt increase.)

The specific rate for dissolving of cast iron in an aluminum alloy with 7% Zn shows the same relationship to iron concentration as for pure aluminum. An increase in temperature from 680-690 to 720-730°C has no effect on specific rate of dissolving. Specific rate of dissolving is increased by raising the zinc content in the melt and at a concentration of 28% the rate is the same as for pure aluminum. However, the relationship between specific rate of dissolving and iron concentration in the calorizing alloy is stronger and differs somewhat from that for pure aluminum.

A sharp reduction in the specific rate of dissolving is observed at iron concentrations below 1.0-1.4% as a function of the calorizing temperature. Beyond this point, there is some increase in the dissolving rate after which it remains practically constant. This type of behavior in the specific rate of dissolving as a function of iron concentration is due to the extreme iron deficiency

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I. 34186-66

ACC NR: AP6026024

(0.012-0.018%) in the eutectic of the Zn-Fe system and the formation of inter-metallic compounds at rather low iron concentrations.

The formation of Fe-Zn and Fe-Al intermetallic compounds (and possibly more complex systems) stabilizes the rate of dissolving. A zinc alloy with 0.2% aluminum yields satisfactory results in calorizing cast iron and steel. Iron saturation of this alloy is much lower than for aluminum or aluminum-zinc alloys. The specific rate of dissolution for iron in this alloy is also very low and increases somewhat with an increase in iron concentration in the alloy. Low iron saturation intensity in a Zn+0.2%Al alloy is due to the low calorizing temperature. Thus, the bath is quite highly saturated with iron during calorizing of steel in aluminum and aluminum alloys.

Two refining methods were tested: settling and filtering. Both methods are based on a reduction in the solubility of iron in aluminum and its alloys when the temperature is reduced. During settling, excess iron which is separated out in the form of aluminides or zincates is precipitated to the bottom of the vat due to its higher specific gravity. In the case of filtering, these iron compounds are retained by the filter for the same reason. Pure aluminum and aluminum-zinc alloy with 28% zinc with various initial iron concentrations were refined. The settling and filtering processes were carried out at a temperature 10-15°C above the solidus temperature. The settling time was four hours. Fusion of the refined alloys with zinc (up to 72% Zn) was used for reducing the

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L 34186-66

ACC NR: AP6026024

solidus temperature. It was found that filtering is an extremely effective refining process and is simpler and less expensive than the settling method. This method is particularly recommended for refining aluminum alloys containing zinc (Al+5-28% Zn and several cast alloys, e.g., ALi11, ALi14, ALi15V, etc.), since the addition of up to 72% zinc to these alloys results in an extremely high purification from iron. Orig. art. has: 2 figures and 1 table. [JPRS: 35,432]

SUB CODE: 11 / SUBM DATE: none

Card

4/4

ZHIZHENKO, V.V.
VASHCHENKO, K.I.; TODOROV, R.P.; ZHIZHENKO, V.V.

Shrinkage, shrinkage cavities and surface tension in magnesium
cast iron. Lit. proizv. no.2:14-20 F '58. (MIRA 11:3)
(Cast iron) (Solidification)

VASHCHENKO, Konstantin Il'ich, doktor tekhn, nauk, prof.; ZHIZHCHENKO, Valentin Vasil'yevich, inzh.; FIRSTOV, Aleksey Nikolayevich, kand. tekhn. nauk, dots.; SLITSKAYA, I.M., inzh., red.; VASIL'YEV, Yu.A., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Bimetal aluminum-iron castings] Bimetallicheskie otlivki aliumini-zhelezo s diffuzionnoi svyaz'iu. Leningrad, 1962. 25 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom, Seriya: Liteinoe proizvodstvo, no.1) (MIRA 15:9)
(Laminated metals) (Founding)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064830005-3

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064830005-3"

ZHIZHEL', G.I., inzh.; STANKEVICH, E.M., inzh.

Manufacture of pressureless socket pipes by centrifugation. Mekh.
stroil. 19 no.4:14-16 Ap '62. (MIRA 15:9)
(Pipe, Concrete)

ZHIZHEL', I.

Introduce new practices in the building of apartment houses. Zhil.
stroitel. no.6:3-5 '62. (MIRA 15:7)

1. Ministr stroitel'stva Belorusskoy SSR.
(White Russia—Apartment houses)

ZHIZHEL', I.M.

High quality for industrial construction! Prom stroi. 42 no.4:
2-4 '65. (MIRA 18:4)

1. Ministr stroitel'stva Belorusskoy SSR.

ZHIZHEL', I., redakter; TRUKHANOV, A., tekhnicheskiy redakter.

[Collection of suggestions for increasing efficiency and improving equipment, submitted by construction workers in White Russia] Sbornik ratsionalizatorskikh predlozhenii i tekhnicheskikh usovershenstvovanii stroitel'stva Belorusii. Minsk, Gos.ind-vo BSSR, 1956. 89 p. (White Russia-Construction industry) (MIRA 9:6)

ATAYEV, S.S., kand.tekhn.nauk; ZALOGO, V.P., inzh.; KOROBCHIKIN, M.A.,
inzh.; PEVZNER, E.D., kand.tekhn.nauk; ROGOVIN, Ya.A., inzh.;
RAKUT', B.A., inzh.; RUBIN, V.I., inzh.; TIRKEL'TAUB, I.D.,
inzh.; FROLOV, N.P., kand.tekhn.nauk; YANKOVSKIY, I.P., inzh.;
MOROGOVSKIY, V.M., inzh., retsenzent; ZHIZHEL', I.M., inzh.,
red.; KAZACHUK, G.A., red.; GOLUBTSOVA, P., red.; STEPANOVA,
N., tekhn.red.

[Builder's handbook] Spravochnik mastera-stroitel'a. Izd.4.,
perer. i dop. Minsk, Gos.izd-vo BSSR. Red.nauchno-tekhn.
lit-ry, 1959. 659 p. (MIRA 13:1)

1. White Russia. Ministerstvo gorodskogo i sel'skogo stroitel'-
stva.

(Building)

ZHIZHEK, I.M., inzh., red.; KAZACHEK, G.A., inzh., red.; ROGOVIN, Ya.A., inzh., red.; MOROGOVSKIY, B.M., inzh., retsenzentskonsul'tant; TRUKHANOVA, A., tekhn.red.

[Handbook for the construction industry] Spravochnoe posobie dlia proizvoditelia stroitel'nykh rabot. Izd.2. Minak, Gos. izd-vo BSSR. Red.nauchno-tekhn.lit-ry, 1958. 522 p. (MIRA 13:1)

1. White Russia. Ministerstvo stroitel'stva.
(Building)

CHIZHEL, I.M.

MOROGOVSKIY, B.M., inzh., retsenzent; ZHIZHEL', I.M., inzh., red.;
KAZACHEK, G.A., inzh., red.; ROGOVIN, Ya.A., inzh., red.;
TRUKHANOVA, A., tekhn.red.

[Handbook for the construction industry] Spravochnoe posobie
dlia proizvoditel'ia stroitel'nykh rabot. Minsk, Gos.ind-vo BSSR,
1957. 522 p. (MIRA 11:1)

1. White Russia. Glavnoye stroitel'noye upravleniye.
(Building)

ZHIZHEMSKIY, I.V.; TOCHILIN, V.M.

Apparatus for removing fat from barrels. Kons.i ov.vrom.
15 no.2:18 F '60. (MIRA 13:5)

1. Beloruskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti.
(Oils and fats)

BLAGODAROV, Vasilii Yemel'yanovich; ZHIZHENKO, V., red.; DOMOVSKAYA, G.,
tekhn. red.

[In the Arctic] V Arktike. 2. izd. Minsk, Gos.izd-vo BSSR. Red.
detskoi i iunosheskoii lit-ry, 1962. 218 p. (MIRA 15:7)
(Arctic regions—Discovery and exploration)

JIJENKOVA, E.F. [Zhizhenkova, Ye.F.]; JISLIN, G.M. [Zhislin, G.M.]

Existence of the minimum of some quadratic functionals in an indefinite field. Anal. mat. 16 no.4:98-106 O-D '62.

ZHIZHERYA, G.V. (Krasnozavodsk)

The place of expert examination in morbidity indices with temporary
disability. Sov.sdrav. 18 no.11:43-47 '59. (MIRA 13:3)
(DISABILITY EVALUATION)

ZHIZHIASHVILI, L.V.

Convergence of double Fourier-Lebesgue series and double
Hilbert transformations. Soob. AN Gruz. SSR 30 no.3:
257-264 Mr '63. (MIRA 17:6)

1. Tbilisskiy gosudarstvennyy universitet. Predstavleno
akademikom G.S. Chogoshvili.

ZHIZHIASHVILI, L. V., Cand Phys-Math Sci -- "Certain problems
from the theory of Fourier-*Lebes* conjugate series." Tbilisi,
Pub House of Acad Sci GSSR, 1961. (Acad Sci GSSR. Tbilisi
Math Inst im A. M. Razmadze) (KL, 8-61, 226)

ZHIZHIASHVILI, L.V.

Conjugate functions of two variables and double Fourier series.
Dokl. AN SSSR 149 no.4:765-768 Ap '63. (MIRA 16:3)

1. Predstavleno akademikom A.N.Kolmogorovym.
(Functions of several variables) (Fourier series)

ZHIZHIASHVILI, L.V.

Conjugate functions of two variables and double conjugate
trigonometric series. Dokl. AN SSSR 155 no. 3:521-523 Mr '64.
(MIRA 17:5)

1. Predstavleno akademikom A.N.Kolmogorovym.

ZHIZHIASHVILI, L.V. (Tbilisi)

Certain properties of (G, χ) mean values of Fourier series and
conjugate trigonometric series. Mat. sbor. 63 no.4:489-504
Ap '64.

(MIRA 17:6)

ZHIZHIASHVILI, L.V.

Theorem of congruence of a Fourier-Lebesgue series. Soob. AN Gruz.
SSR 25 no.5:513-516 N '60. (MIRA 14:1)

1. Tbilisskiy gosudarstvennyy universitet imeni Stalina. Pred-
stavleno chlenom-korrespondentom Akademii G.S. Chogoshvili.
(Fourier series) (Congruences (Geometry))

ZHIZHIASHVILI, L.V.

Convergence and summability of Fourier series. Soob. AN
Gruz. SSR 29 no. 3:257-261 S '62 (MIRA 19:1)

1. Tbilisskiy gosudarstvennyy universitet. Submitted July 12,
1961.

ZHIZHILASHVILI, T.I.

Study of species of the myrmecofauna (Formicidae) in the
steppe zone of eastern Georgia. Soob. AN Gruz. SSR 33
no.3:663-666 Mr. '64 (MIRA 17:8)

1. Institut zoologii, AN GruzSSR, Tbilisi. Predstavleno
chlenom-korrespondentom AN GruzSSR L.P. Kalandadze.

ZHIZHILASHVILI, T.I.

New maple pest, *Phylloetema flavicellis* Guss. (Hymenoptera, Tenthredinidae). Soob.AN Gruz.SSR 8 no.5:337-342 '47.
(MIRA 9:7)

1.Akademiya nauk Gruzinskey SSR, Zoologichaskiy institut, Tbilisi. Predstavlene deystvitel'nykh chlenov Akademii F.A. Zaytsevykh.
(Maple--Diseases and pests) (Insects, Injurious and beneficial)

ZHIZHILASHVILI, T. I.

Materials on the bioecology of the plane tree cicada (*Miwadsiana*
Platani A. Zach. in Litt.) under conditions prevailing in Tbilisi
and its environs. Soob. AN Gruz. SSR 15 no. 6:371-376 '54.
(MLRA 8:6)

1. Akademiya nauk Gruzinskoy SSR, Institut zoologii, Tbilisi.
Predstavleno deystvitel'nym chlenom Akademii F. A. Zayshchevym.
(Tiflis--Cicada)

ZHIZHILASHVILI, T.I.

Ecologic and geographical characteristics of the myrmecofauna
in the steppe zone of Georgia. Soob. AN Gruz. SSR 34 no.38
651-657 Je '64 (MIRA 1881)

1. Institut zoologii AN Gruzinskoy SSR, Submitted May 21, 1963.

ZHIZHILASHVILI, T.I.

Contributions to the study of the spider mite (*Schizotetranychus telarius* L.) on linden trees in Tiflis [in Georgian with summary in Russian]. Trudy Zool.inst. AN Gruz.SSR 10:145-159 '51. (MLBA 7:7)
(Tiflis--Red spider) (Red spider--Tiflis) (Linden--Diseases and pests)

AUTHORS: Sayasov, Yu. S., and Izrael'skiy, A. A.

TITLE: Resonance scattering of radio waves in the field of artificial earth surface

PERIODICAL: Radiotekhnika i elektronika, Vol. 37, No. 1, 1992, pp. 499-502

ABSTRACT: Scattering phenomena are investigated in the case when a plane wave hits in a field of an artificial surface of infinite length. The results of the calculations are presented. The dependence of the scattering coefficient on the angle of incidence and the angle of reflection is shown. The results of the calculations are presented. The dependence of the scattering coefficient on the angle of incidence and the angle of reflection is shown.

Card 1/3

resonance scattering...

D271/D308

tions is near zero, the scattering of the particles has a re-
sonance character. Self-resonance

$l = -\infty$

The scattering amplitude is

...

given the conditions required for self-resonance. In real condi-
tions, the trail is not fully ...

Card 2/3

Resonance scattering...

x-direction. The analogy with a unidirectional wave is applied to the evaluation of the scattering cross-section.

-- I. Litayevskiy for their help in checking results.

SUBMITTED: July 7, 1962

Card 3/3

ACC NR: AP7007044

SOURCE CODE: UR/0203/66/006/004/0671/0677

AUTHOR: Zhizhimov, L. A.

ORG: Institute of Physics and Mathematics, AN KirgSSR (Institut fiziki i matematiki AN KirgSSR)

TITLE: Resonance scattering of electromagnetic waves by small perturbations in rarefied plasma

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 4, 1966, 671-677

TOPIC TAGS: resonance scattering, earth magnetic field, rarefied plasma

SUB CODE: 08,20

ABSTRACT: In this investigation the author has developed a theory of resonance scattering of electromagnetic waves on a plasma perturbation with an arbitrary distribution of electron density. The paper successively considers the polarization effect in resonance scattering of electromagnetic waves, the cross section of resonance scattering, the equation of low-frequency oscillations and resonance scattering of radio waves by the trails of artificial satellites. The considered special cases of resonance scattering do not exclude different variations in the cross sections associated with the influence of the earth's magnetic field, motion of a body relative to the direction of the latter, influence of collisions between particles on the perturbation of the concentration of electrons, ions and on the effective dimensions of the trail. Allowance for all these factors in principle can be made using the general expressions obtained on the basis of the resonance theory developed in this paper. The author thanks Yu. S. Sayasov for his interest in the work. Orig. art. has: 21 formulas. [JPRS: 38,937]

Card 1/1

UDC: 550.388.2

ZHIZHIN, G.N.; STERIN, Kh.Ye.

Infrared absorption spectra of cyclohexane and its symmetrically substituted at low temperatures. Opt. i spektr. 19 no.1:55-64
Jl '65. (MIRA 18:8)

ZHIZHIN, G.N.; BARINOVA, Z.B.; LIBERMAN, A.L.; KUZNETSOVA, I.M.; TYUN'KINA, N.I.

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